

\* SWBAT solve problems using  $W=F*d$

Sep 6-2:31 PM

# Welcome!!!

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SECA Physics  
Tuesday 12 November 2013

\* Pick up:

- slip of paper (for later)
- whiteboard, marker, eraser

Opening Questions:

What was one example of physics work from yesterday?

LIFTING MY FINGER  
↓  
FORCE CAUSED MOVEMENT

HOLDING:  
FORCE



NOT MOVING  
NOT WORK  
Centering...

Sep 7-7:04 AM

1. (Physics) work is when a FORCE causes a displacement.

**Yesterday's**

2. **True or False:** For (physics) work to be done on an object, the object must move.

3. **True or False:** Leslie did work on the balloon when she let it go.

Sep 14-7:28 AM

**Candy!**

**Examples:**

A force is a push or a pull.

Throwing an eraser  
Horse pulling a cart

Work is when a force causes a displacement.

Come up with at least 3 examples of "physics" work.

Sep 21-2:13 PM

eureka: <http://www.youtube.com/watch?v=O88BvvKotFo>

It's an equation:

$$W = F \cdot d$$

Let's practice...

Units???

$$\text{Joules} = \text{Newton} \cdot \text{meter}$$



1. If 1200 N of force lifts a barbell 2 meters from the floor, what is the work done?

$$W = F \cdot d = 1200\text{N} \cdot 2\text{m} = 2400\text{N} \cdot \text{m} = 2400\text{J}$$

2. If 40 Joules of work was done on a rock as it moved 4 meters, what was the force?

$$F = \frac{W}{d} = \frac{40\text{J}}{4\text{m}} = 10\text{N}$$

3. If 20 N of force resulted in 10 Joules of work, how far did the object move?

$$d = \frac{W}{F} = \frac{10\text{J}}{20\text{N}} = 0.5\text{m}$$

Nov 16-7:43 AM

## Daily 3 Questions

- \* Every day except test/project days
- \* 3 Questions on the topics of the day
- \* Main source of daily points
- \* I am happy to give credit when I have no concerns about someone giving or getting help with the answers.

CP Homework: Create your own problem using  $W = F \cdot d$  and solve it

You can't get your points if you don't have your NAME!!!

Name	Period
1.	
2.	
3.	

Sep 9-7:32 AM

1. What units do we use to measure "work"?

A. pounds

B. meters

C. Joules

2. What is the equation for work?

$$W = F \cdot d$$

3. How much work is done if 1200 N of force is used to lift 2 meters of displacement.

$$W = F \cdot d = 1200 \text{ N} \cdot 2 \text{ m} = 2400 \text{ J}$$

Nov 16-7:45 AM